

STAFF ANALYSIS
SUTTER POWER PROJECT
Request to Amend Condition of Certification AQ-32

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AMENDMENT REQUEST

The Calpine Corporation (Calpine) is requesting a minor amendment to Condition of Certification AQ-32 for the Sutter Power Project (Sutter), located within the Feather River Air Pollution Control District (District), to allow for the hourly limit on carbon monoxide (CO) emissions during startup to be averaged over a period of three hours.

BACKGROUND

Calpine is unable to consistently comply with the hourly CO emission limits during cold startups of the Sutter turbines. The majority of the cold startups have met the CO startup emission limit, but as recently as February, Sutter turbines exceeded the emission limit during the first hour of cold startups. Careful analysis of the cold startups showed that in all cases, Sutter's turbines would have complied with a 3-hour averaged emission limit. It is also important to note that the operational hourly CO emission limit is averaged over three hours.

LAWS ORDINANCES REGULATIONS AND STATUTES

No laws, ordinances, regulations or standards will affect the petitioned amendment requests.

ANALYSIS

Increasing the CO hourly emission limit-averaging period from one hour to three hours would only marginally increase potential 1-hour CO emissions. Since ambient air quality measurements of CO are well below the state and federal standards, staff concludes that there will be no significant impact from granting the petition (i.e., there would be little chance for violations of ambient CO standards). Based on discussions with the District, staff anticipates their approval of the related change to the air permit.

CONCLUSIONS AND RECOMMENDATIONS

Staff has analyzed the proposed changes and concludes that there will be no new or additional significant impacts associated with approval of the petition. Staff concludes that the proposed changes are based on information that was not available during the original licensing procedures. Staff concludes that the proposed language retains the intent of the original Commission Decision and Conditions of Certification.

PROPOSED CHANGES TO CONDITION OF CERTIFICATION AQ-32

Proposed deletions are shown in ~~strike through~~ and insertions in **bold type**.

AQ-32(11) The maximum hourly emissions from each gas turbine/duct burner are given in the table below and shall be averaged over a rolling three hour period, except for the NOx emissions, and ~~all~~ **NOx, VOC, PM10 and SO2** hourly startup emission rates, which shall be averaged over a one hour period. Additionally excepting the total emissions per startup and total emissions per shutdown which are not averaged over any time frame.

Pollutant	Maximum Allowable Hourly Emissions from Each Gas Turbine/Duct Burner (lb/hour)			
	In all modes of operation except startup and shutdown (lb/hour)	Start Up (lb/hour)	Start Up (lb/startup)	Shut Down (lb/shutdown)
NOx	19.1 (1 hour average)	175	680	80
CO	34.3 (3 hour average)	902	2514	100
VOC	3.51 (3 hour average)	16	59	16
SO ₂	4.02 (3 hour average)	3.7	22.2	3.7
PM ₁₀	11.5 (3 hour average)	9	54	9